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A Review of the National TB DST Reference Center

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Acknowledgments

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Kelly Wroblewski

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CDC-DTBE-LB

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Enrolled/Submitting States

CDPH-MDL

Ed Desmond

Grace Lin

Steven Yu



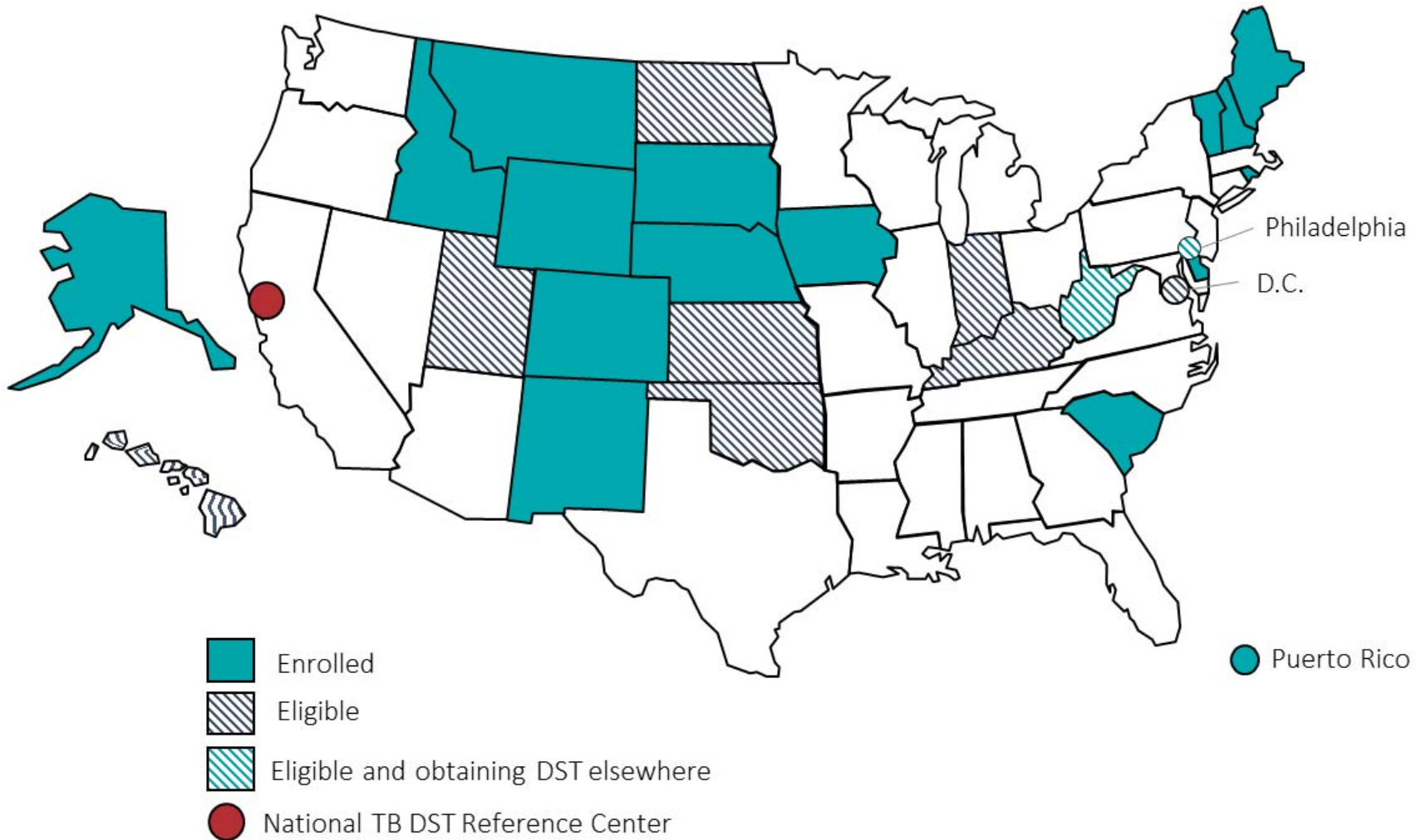
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Project Objectives

- To identify drug resistant TB as quickly and reliably as possible
- To provide PHLs receiving less than 50 TB isolates per year submitted DST access to high-quality drug susceptibility testing in a shared service model



PHL Eligibility and Enrollment



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Services Offered

1st RIF (1 $\mu\text{g}/\text{mL}$), INH (0.1 $\mu\text{g}/\text{mL}$)*, PZA (100 $\mu\text{g}/\text{mL}$), EMB (5 $\mu\text{g}/\text{mL}$)

*For drugs marked with an asterisk, additional concentrations of drug may be tested in certain circumstances.



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Sample Submission Data

		Submitted For:			Reflexed to:	
Year	n	1 st Line	2 nd Line	PSQ	2 nd Line	PSQ
2015*	163	147	7	16	14	16

* For 2015 the TB DST started accepting specimens on 3/6/2015



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Drug Resistance Detected in MTBC

Type	n
Mono-Resistance	
RIF	1
INH	16
PZA	23*
Dual-Resistance	
INH-R, PZA-R	3
INH-R, ETH-R	3
PZA-R, MOX-R	1
Other	
MDR	2
XDR	1
PZA-I, ETH-R	1

*Many samples that are PZA-R are *M. bovis*

Turnaround Time

Monitored Interval	Turnaround Time Median (Mean) Days		
	2015	2016	Overall
Submitted for FL-DST from receipt of isolate to RIF report	17 (17.4)	14 (15.4)	15 (16.2)
from receipt of specimen to final report	18 (19.7)	15 (16.6)	16 (17.9)



Maintaining In-House Capacity

- Of the 16 actually enrolled laboratories...
 - 13 have maintained in-house capacity
 - 5 FL-DST
 - 6 Molecular (XPERT or Sequencing)
 - 1 Other (960 MGIT)

Why?

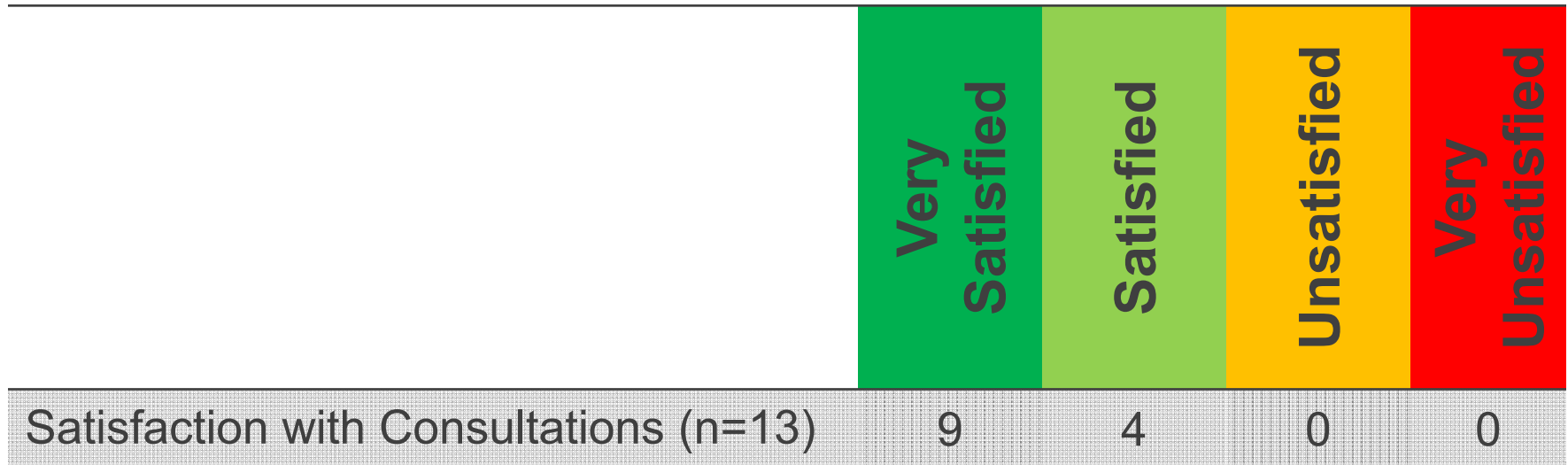
- TB Program
- Molecular Requests
- TAT
- Loss of Competency/Expertise at PHL

Are you satisfied with...?

	Yes	No	N/A
FL-DST TAT	11	2	2



Rate your Satisfaction with...



*One PHL responded “very unsatisfied” but their follow-up responses indicate that this may have been an input error not a true reflection of their satisfaction.



Conclusions

- 1 new enrollment in 2016
- Slight increase in number of submissions
 - 2016: Avg 23 tests/month
 - 2017: Avg 28.5 tests/month
- TAT have improved but MDL continues to work to maintain acceptable TAT and APHL continues to monitor
- Successfully identifying drug resistance



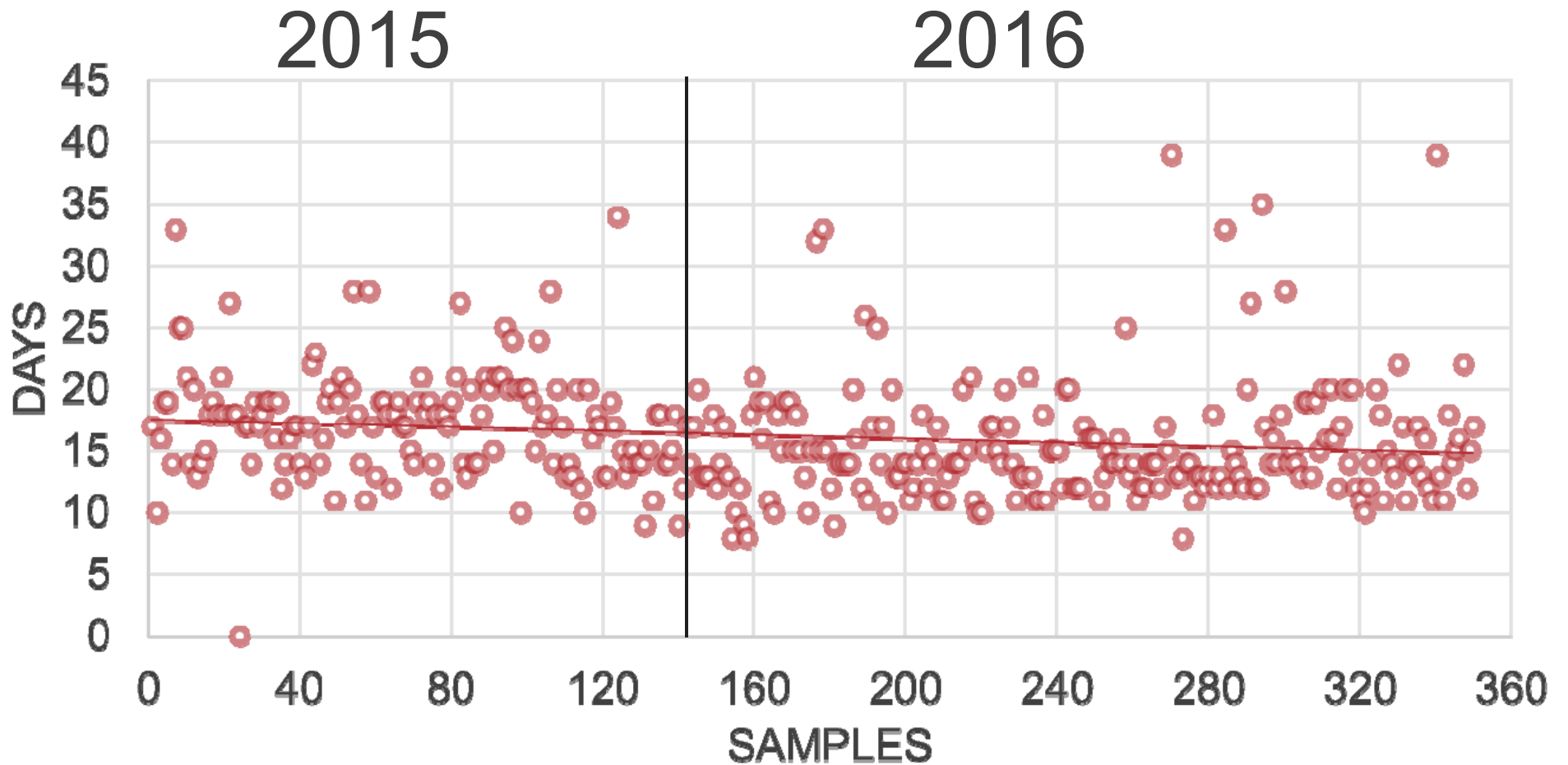
Next Steps

- Continue to follow-up on findings from User Survey
- Addition of SL-DST for Kanamycin
- Continued operations from 2017-2018
- **Electronic Test Ordering and Reporting**



Questions?

TAT: Receipt of Isolate to RIF Result



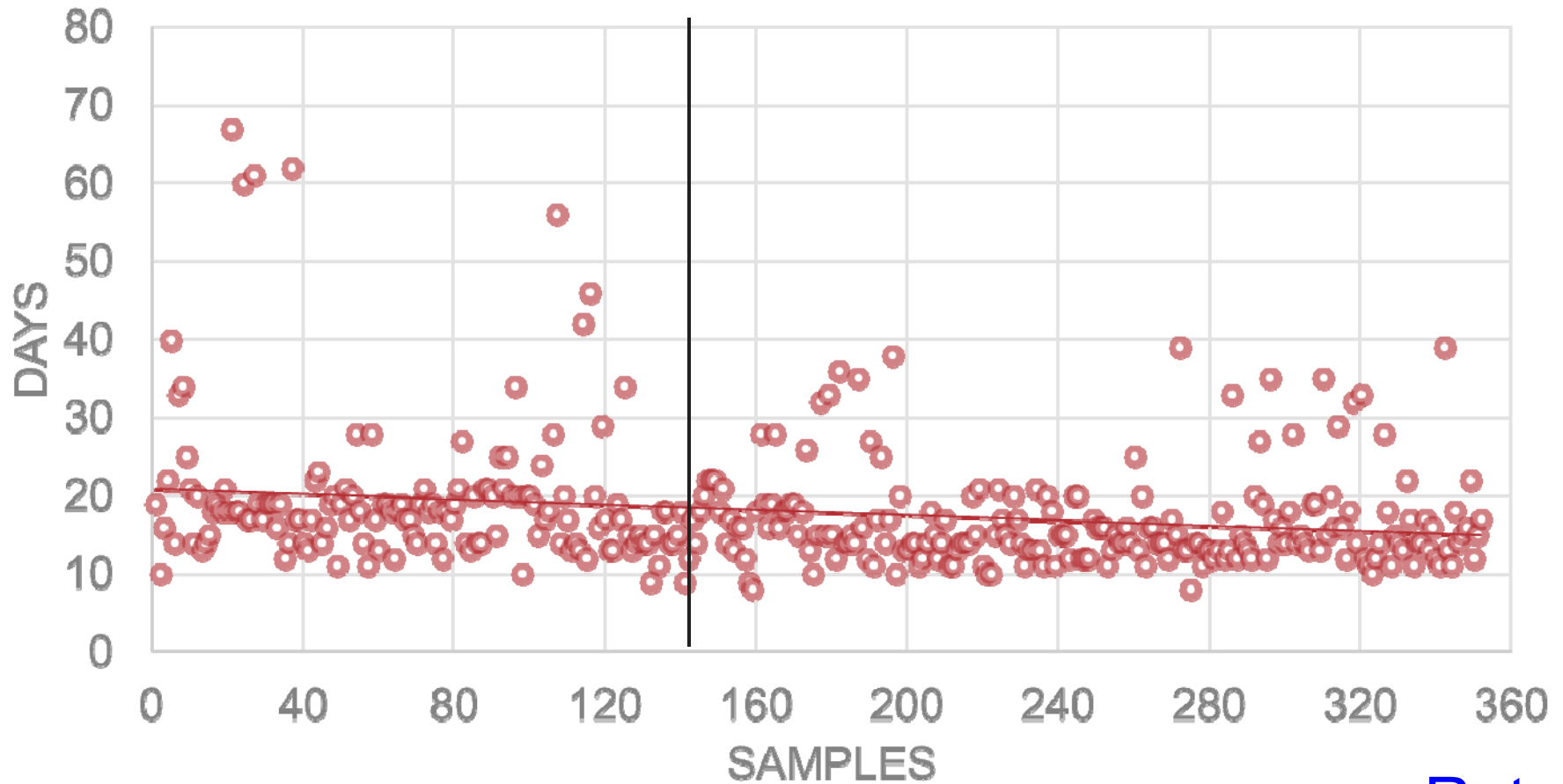
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TAT from Sample Receipt to 1st Line Final Result

2015

2016



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